



Name: Bassem Djedi

Rank: Instructor - Aviation Engineering

Personal Information

Nationality:	Tunisian
AU Joining Date:	08 Feb 2018
E-Mail Address:	b.djedi@au.edu.kw

Professional Information

Education:	• MBA in International Management - Business Administration, Swiss Bank School, [2021] • MScR in Aviation, Aerospace and Electrical/Electronic Engineering, Coventry University, United Kingdom [2018] • MSc in Aerospace Engineering, Coventry University, United Kingdom [2015] • Emirates Aviation College/ University, United Arab Emirates, Dubai [2011 - 2014] • BEng in Aerospace Technology • HND in Aeronautical Engineering • A Levels, AS Levels and O Level, Al Nahda National School for boys, United Arab Emirates, Abudhabi [2008-2010]
Specialization:	Aerospace/Aeronautical Engineering
Current Academic Position:	• Instructor - Aviation Engineering
Current Professional Positions:	• Researcher - Cranfield University, Centre of Aeronautics
Previous Administrative Position Held:	NA
Previous Academic Positions Held:	• Junior Trainer at the Australian University, Kuwait [Sep 2019 - Sep 2023] • Teaching assistant at the Australian University, Kuwait [Feb. 2018 - Sep. 2019]

	Engineering and Development Intern at Coventry University, United Kingdom [June 2015 - Sep. 2015]
Fellowships and Honors:	- Edexcel BTEC Level 5, HND Diploma in Aeronautical Engineering (accredited by Royal Aeronautical Society (RAeS). - Bachelor of Engineering with Honors First class in Aerospace Technology (accredited by Royal Aeronautical Society (RAeS). - Master of Science (MSc) in Aerospace Engineering, Coventry University. - Master of Science by research (MScR), with minor corrections, Coventry University.
Teaching Experience:	- Private Tutor (Mathematics, Mechanics, Physics, Aerodynamics) [2014 – 2017] - Teaching assistant at the Australian University, Kuwait [2018 - 2019] - Junior Trainer at the Australian University, Kuwait [Sep 2019 - Sep 2023]
Industrial and Technical Experience:	- Participated in a team project which involved in the design, aerodynamic calculations and construction of an RC Hovercraft and further analysis using ANSYS Software to determine the total drag by the model. In addition to that is the self-manufacturing of tools to be used during the construction and exact measurements of cushion pressure. - Individually carried out a project on Crack Analysis using structural ANSYS on Aircraft Metals (Cessna's frontal wheel, and Turbine's Blade from J34-WE-34 Turbojet engine) and personally conducted various Non-Destructive Testing (NDT) techniques (such as MPI, DPI, UT, and RT) and Borescope Inspection in various positions of J34-WE-34 Turbojet engine such as its compressor, combustion chamber, turbine shaft and turbine. - Experienced in software analysis and design using Hypermesh. Along with Simulation Software X-plane v9. Also, an experienced user of 3-D and 2-D modeling in Solidworks. - Designing and construction of a fifth order polynomial low speed wind-tunnel contraction nozzle using a 3-D printer (Ultimaker-Extended). - Conducted "Aircraft Monitoring and Recording Systems" studies on Harrier fighter jet. Dismantling the aileron and placing strain gauges onto the Port Aileron Tandem Jack Output Rod. Also, used the Vershay P3 Strain Gauge Indicator to study the strain effect when loads are applied on the aileron. - Focused on the study of jet impingement phenomena through computational fluid dynamics (CFD) using OpenFOAM. The primary objective was to analyze the behavior and characteristics of jet impingement under various conditions by employing both Reynolds-Averaged Navier-Stokes (RANS) and Large Eddy Simulation (LES) modeling approaches.
Research Interest:	- Fluid Mechanics (Experimental and Computation Fluid Dynamics). - Finite Element Analysis.
Research Grants:	-
Research and Publications including Journal and Books:	Bassem D (2018) Experimental study of the flow through a scale model of a particulate filter channel [MRes thesis]. Coventry: Coventry University. [Manuscript being written]

	- Sedaghat, A., Djedi, B., Farhat, M., Al-Khiami, M., El Badawy, M. (2024) 'A Novel Origami Inspired Micro Wind Turbine Operating by Reaction Force for Application in Urban Environments,' Journal of Applied Energy. (Manuscript Submitted) - Sedaghat, A., Djedi, B., Farhat, M., Al-Khiami, M., El Badawy, M. (2024) 'A Novel Origami Inspired Single Rotor Horizontal Axis Wind Turbine Concept for Micro Wind Power Generation in Buildings,' Journal of Applied Energy. (Manuscript Submitted) Title of the Invention: <i>An Origami Inspired Bladeless and Hub less Micro-Horizontal Axis Wind Turbine for Building and Enclosure Applications: The Sedaghat-Djedi-Origami Wind Turbine Concept.</i> (Intellectual Property approved by Kuwait National Library, Deposit Number: 7-0076/2024) [2024]
Paper Presentations at Professional Conferences:	-
College Service including committee Membership:	1. Prepare and develop descriptions and summaries of units included in the curriculum. 2. Prepare assessments for the purpose of evaluation and improving student performance. 3. Prepare learning sources that needs to be in the library as a reference for students. 4. Determination of needed IT resources to facilitate the academic plans. 5. Maintain accurate records of student data such as grades and attendance. 6. Supervision of student projects. 7. Substitute for other instructors within field or discipline in case of absence. 8. Actively contribute in serving the society. 9. Participate in graduation ceremonies. 10. Participate in the design, coordination, evaluation and refinement of the unit syllabus for learning outcomes in accordance with accreditation requirements. 11. Teaching and execution of unit syllabus to enable students to achieve success. 12. Act as an academic advisor across multiple units to the students with regular follow-up on their progress. 13. Contribute to the selection and development of teaching materials in accordance with unit objectives. 14. Serve on university, department and program committees as needed. 15. Comply with AU policies and procedures. 16. Other duties as assigned by the Acting Head of Aviation Academic Programs.
National Service:	-
College Committees:	-